

Transferring Files Between AWS S3 Storage and Your AWS PBS_O_WORKDIR Directory

Use the **CLOUD** directives described in this article to copy files between your S3 storage on AWS and your `$PBS_O_WORKDIR` directory in AWS.

When you submit a job from Pleiades, the value of the job's `$PBS_O_WORKDIR` variable (the `cwd` at the time of the `qsub` operation) is recreated in AWS. If the job uses your persistent `/nobackup` directory, it will be under that filesystem. Otherwise, the value will be a symbolic link created under the node's root filesystem that points to the primary job-time filesystem. This enables the job to change (`cd`) to the `$PBS_O_WORKDIR` directory.

Note: In a PBS script, all PBS directives should be specified before the **CLOUD** directives.

Get Files or Directories from S3 to `$PBS_O_WORKDIR`

The following **CLOUD** directives allow you to get files or directories from the specified S3 folder to the `$PBS_O_WORKDIR` directory in AWS.

- To get your `dir1/dir2/file` in S3 and place it as `PBS_O_WORKDIR/dir1/dir2/file`:

```
#CLOUD -get_file=dir1/dir2/file
```

- To get your `dir1/dir2/file` in S3 and place it as `PBS_O_WORKDIR/dir2/file`:

```
#CLOUD -get_file=dir2/file:dir1
```

- To get your `dir1/dir2/file` in S3 and place it as `PBS_O_WORKDIR/file`:

```
#CLOUD -get_file=file:dir1/dir2
```

- To get all files from your `dir1/dir2` directory in S3 and place them under `PBS_O_WORKDIR/dir1/dir2`:

```
#CLOUD -get_dir=dir1/dir2
```

- To get all files from your `dir1/dir2` directory in S3 and place them under `PBS_O_WORKDIR/dir2`:

```
#CLOUD -get_dir=dir2:dir1
```

- To get all files from your `dir1/dir2` directory in S3 and place them under `PBS_O_WORKDIR`:

```
#CLOUD -get_dir=/:dir1/dir2
```

Example 1

The following command line will get the `output.dat` file under your S3 `run01` directory and place it as `$PBS_O_WORKDIR/run01/output.dat`:

```
#CLOUD -get_file=run01/output.dat
```

Example 2

The following command line will get all files under your S3 `run02/data` directory and place them under `$PBS_O_WORKDIR/data`:

```
#CLOUD -get_dir=data:run02
```

Put Files or Directories to S3

To put files or directories to S3, run the following commands, where `src_file` or `src_dir` is relative to `$PBS_0_WORKDIR` and `optional_dest_dir` is relative to your S3 root location.

```
#CLOUD -put_file=src_file:optional_dest_dir
#CLOUD -put_dir=src_dir:optional_dest_dir
```

If `optional_dest_dir` is not specified, `$PBS_0_WORKDIR/src_file` is copied to your S3 root location, and `$PBS_0_WORKDIR/src_dir/*` is copied to the `src_dir/*` under your S3 root location.

Example 3

To put `$PBS_0_WORKDIR/data/output.dat` as `run02/output.dat` under your S3 root location:

```
#CLOUD -put_file=data/output.dat:run02
```

Example 4

To put `$PBS_0_WORKDIR/data/hdf5/*` as `run03/hdf5/*` under your S3 root location:

```
#CLOUD -put_dir=data/hdf5:run03/hdf5
```

Order of Operation

The `-get_xxx` operations occur before the execution of the body of the PBS script, while the `-put_xxx` operations occur after the execution of the body of the PBS script.

If you are using other **CLOUD** directives, see [Order of Operation of Cloud Directives](#).

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Cloud Computing -> AWS Cloud -> Transferring Files Between AWS S3 Storage and Your AWS PBS_O_WORKDIR Directory

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